INFORMATION GATHERED:
USE TRENDS IN NEARSHORE WATERS

The findings and recommendations presented earlier in this report were based on research and analysis of information about a wide range of topics. A summary of each research component is below, with references to complete documents in appendices, when appropriate.

Maine's Nearshore Waters: Current Uses and Anticipated Trends

Maine's nearshore waters and submerged lands, which extend from mean low water out to three miles offshore, cover nearly 2 million acres. This broad expanse of the public domain supports a diversity of human activities, from well-established, traditional uses such as commercial fishing, maritime commerce and transportation, and recreational boating to newer uses such as aquaculture, whale-watching, kayak touring and cruise ship visitation that, like more traditional uses, make important contributions to coastal economies. In order to provide background information and context for better understanding issues regarding both the current and potential new approaches to nearshore governance, SPO prepared a report to assess current and anticipated uses of Maine's nearshore waters. This report, *Maine's Nearshore Waters: Current Uses and Anticipated Trends* (SPO, October 2006), ("trends report") is attached as Appendix [X]. The report contains a discussion of the following categories of uses: marine aquaculture, commercial fisheries, marine transportation, marine recreation, energy facilities and related development, coastal dredging and ocean disposal of dredged materials, water pollution control, and marine conservation.

To the extent practicable given available information and its limited scope and purpose, the report identifies current and future trends in use, the expected geographic location(s) of certain activities, and potential conflicts among uses. Readers should note that it does not purport to be an exhaustive or empirical study of nearshore uses and their effects. Information used in the report was obtained primarily from interviews with state agency staff and members of the public with pertinent experience and information and internet-based research. In many cases there was little published data available to evaluate certain sectors and thus for certain topics the information used is anecdotal in nature. Notwithstanding these limitations, the trends report does provide a general understanding of types and levels of activity, as well as an informed view on anticipated trends and potential associated conflicts.

The trends report notes that a variety of factors are likely to contribute to increasing diversification and intensification of human uses and related pressures on coastal ecosystems and that there is potential for growth both in traditional and new, emerging uses. Principal factors include technological innovation; increased demand and economic conditions supportive of development of renewable energy sources; increased demand for seafood products; continued growth in Maine's resident coastal population; and continued growth in coastal tourism and recreation. Given this diversity and level of activity, it is reasonable to expect that problems and concerns may arise on issues such as conflicts among user groups and adverse environmental effects.

The trends report includes a summary table (reproduced below) that offers a useful overview of its assessment of current and anticipated trends in nearshore activities. The trends report suggests that the composition, nature and pace of change and the degree of potential conflict among uses are expected to continue to vary markedly in different places along the coast.

Maine's Nearshore Waters: Current Uses and Anticipated Trends

Summary Table

Use	Has there been an increase or a decrease in this use, or has it remained stable over the past 5 years?	Is this use likely to increase, decrease or to remain stable over the next 5 years?*	Where in Maine will the increase in the use take place, (if applicable)?*
Aquaculture	Decrease in finfish Increase in shellfish	Increase – both finfish and shellfish	• Finfish – primarily Downeast. • Shellfish – could be coast-wide in places where conditions are suitable
Lobster Fishing	Increase in the amount of gear, decrease in the number of fishermen	Increase in the amount of gear, decrease in the number of fishermen	Statewide increase in traps with the greatest increase likely occurring in Downeast Maine
Urchin Fishing	Decrease	Difficult to determine	Difficult to determine
Sea Scallop Fishing	Decrease in the number of licensed fishermen	Difficult to determine	Difficult to determine
Sea Cucumber Harvesting	Stable	Stable	Will likely continue to be primarily a Downeast fishery
Blue Mussel Harvesting	Decrease in the number of licensed fishermen	Stable or decrease – depends on the resource	Not applicable (increase not predicted)
Horseshoe crab Harvesting	Decrease (No recorded harvest since 2003)	Stable (unless seasonal closure is lifted)	Not applicable (increase not predicted)
Soft Shell Clam Harvesting	Decrease in the number of licensed fishermen	Difficult to determine	Difficult to determine
Shrimp Fishing	Decrease in number of licensed fishermen	Difficult to determine	Depends on the shrimp population but will likely continue to take place between Kittery and St. George
Marine Worm Harvesting	Stable	Difficult to determine	Will likely continue to take place primarily between midcoast and Downeast Maine
Periwinkle Harvesting	Difficult to determine	Difficult to determine	May continue to be primarily a Washington County fishery
Seaweed Harvesting	Decrease in the number of licensed harvesters	Difficult to determine.	Difficult to determine
Herring	Decrease in the number of licensed fishermen	Difficult to determine	Unless there is a change in the resource, this will likely remain a primarily offshore fishery
Cargo Port Traffic	Increase	Increase	Primarily at 3 major ports: Portland, Searsport, Eastport
Cruise Ships	Increase	Increase	• Increased traffic possible at Portland and Bar Harbor • Possible growth in visits to small ports by smaller cruise ships
Ferry Service	Slight increase in ridership	Slight increase in ridership	No areas have been identified at this time

INFORMATION GATHERED:
USE TRENDS IN NEARSHORE WATERS

Use	Has there been an increase or a decrease in this use, or has it remained stable over the past 5 years?	Is this use likely to increase, decrease or to remain stable over the next 5 years?*	Where in Maine will the increase in the use take place, (if applicable)?*
Boating and Boating Facilities	Increase	Increase	• Statewide increase for boating, and demand for moorings • Increase in marinas will likely occur first in southern and mid-coast Maine
Docks, Piers, Wharves	Increase	Increase	Statewide
Sea kayaking	• Increase in people using recreational kayaks** • Increase in short (half day) kayak trips** • The number of people using traditional kayaks and going on extended tours has remained stable**	• Increase in the number of people using recreational kayaks	• Some increase in Downeast use • Most growth will likely take place in the islands that are already seeing a lot of use
Wildlife Sightseeing	Stable**	Slight increase	Difficult to determine
Saltwater fishing	Slight decrease	Stable	Not applicable (increase not predicted)
Energy Facilities	Increase	Increase	Dependent on type of energy resource
Coastal Dredging and Dredge Disposal	Difficult to determine	Difficult to determine	Difficult to determine
Marine Managed Areas	Increase	Increase	Difficult to determine

Summary Table: Water Pollution

Type of Waste Disposal/Pollution	Has this been on the increase, decrease or remained stable over the past 5 years?	Is this likely to increase, decrease or remain stable over the next 5 years?*	Where in Maine will the increase take place (if applicable)?*
Point Source Pollution	Decrease of some sources, including Overboard Discharges (OBD's)	Decrease of some sources, including OBD's	Difficult to determine
Non-Point Source Pollution	Increase	Increase	Statewide issue
Marine Debris	Persistent problem	Will continue to be a persistent problem	Statewide issue
Toxic Pollution	Increase in some substances, decrease in others	Increase in some substances, decrease in others	Difficult to determine

* = An estimation based on best available data

** = Assessment comes primarily from anecdotal evidence

MAINE'S EXISTING NEARSHORE GOVERNANCE SYSTEM

Before embarking on identifying potential improvements to Maine's nearshore marine management system, it was necessary to first consider the current mix of legal jurisdictions and authorities over the coastal waters. This section starts with an overview of the broad guidance that is provided for coastal resources management by the Public Trust Doctrine and Maine's Coastal Management Policies, and then discusses the way that these obligations are fulfilled by the municipal, State and Federal entities entrusted with responsibilities for managing Maine's coastal resources. Finally, it provides one example of an innovative approach to governance that has occurred in Maine with regard to fisheries management – the lobster zone council system.

Public Trust Doctrine:
The Public Trust Doctrine provides that public trust lands, waters and living resources are held by the State in trust for the benefit of all the people of Maine, and establishes the right of the public to fully enjoy these areas for a wide variety of public trust uses. In the context of the coastal zone, it specifically means that Maine's ocean resources belong to all the people of Maine, and are held in trust by the State for the benefit of current and future generations. The continued protection of this trust is a duty of the State, and in practice, these responsibilities are often carried out by the State exercise of its regulatory power.

Coastal Policies:
The Public Trust Doctrine is permissive of a wide range of public uses, including navigation, commerce, fishing, recreation and conservation. It does not assign priorities among these uses (Hildreth 1989). It is the State's obligation to protect and balance the public trust uses. Maine's Legislature has provided the guidance for doing so through the Maine Coastal Management Policies Act (38 MRSA §1801) , specifying that, "the well-being of the citizens of this State depends on striking a carefully considered and well reasoned balance among the competing uses of the State's coastal area."

Thus, the Coastal Management Policies Act articulates the legislative policy that provides a basic policy framework and vision for management of the State's nearshore embayments and other coastal areas[1]. Simply put, the Act's vision for the coast is one where multiple uses coexist; where a variety of uses are accommodated and managed in a way that serves to protect and conserve key coastal attributes. The Act provides that "state and local agencies and federal agencies as required by the United States Coastal Zone Management Act of 1972, PL 92-583, with responsibility for regulating, planning, developing or managing coastal resources, shall conduct their activities affecting the coastal area consistent with the following polices to:"

"1. Port and harbor development. Promote the maintenance, development and revitalization of the State's ports and harbors for fishing, transportation and recreation;

2. Marine resource management. Manage the marine environment and its related resources to preserve and improve the ecological integrity and diversity of marine communities and habitats, to expand our understanding of the productivity of the Gulf of Maine and coastal waters and to

[1] The Act defines the "coastal area" as "all coastal municipalities and unorganized townships on tidal waters and all coastal islands. The inland boundary of the coastal area is the inland line of coastal town lines and the seaward boundary is the outer limit of the United States territorial sea." 38 MRSA §1802, sub-1.

enhance the economic value of the State's renewable marine resources;

3. Shoreline management and access. Support shoreline management that gives preference to water-dependent uses over other uses, that promotes public access to the shoreline and that considers the cumulative effects of development on coastal resources;

4. Hazard area development. Discourage growth and new development in coastal areas where, because of coastal storms, flooding, landslides or sea-level rise, it is hazardous to human health and safety;

5. State and local cooperative management. Encourage and support cooperative state and municipal management of coastal resources;

6. Scenic and natural areas protection. Protect and manage critical habitat and natural areas of state and national significance and maintain the scenic beauty and character of the coast even in areas where development occurs;

7. Recreation and tourism. Expand the opportunities for outdoor recreation and encourage appropriate coastal tourist activities and development;

8. Water quality. Restore and maintain the quality of our fresh, marine and estuarine waters to allow for the broadest possible diversity of public and private uses; and

9. Air quality. Restore and maintain coastal air quality to protect the health of citizens and visitors and to protect enjoyment of the natural beauty and maritime characteristics of the Maine coast."

Implementation of these policies is achieved through agencies' enforceable resource management laws and regulations and other programmatic efforts. In those instances where a permit or lease must be issued, agencies typically have decision criteria which clearly specify which existing uses must be considered when making the permit determination (see Appendix X, Decision Criteria).

Coastal municipalities, when preparing comprehensive plans under the Comprehensive Planning and Land Use Regulation Act, are required to address each of the coastal policies and to create strategies that implement them. Seventy-eight of Maine's 136 coastal towns have adopted comprehensive plans that have been determined to be consistent with state goals.

As directed by 38 MRSA §1803, on January 1, 1989, SPO reported to the Legislature on policy accomplishments to date related to these policies. Although in subsequent years, neither SPO nor another state agency has prepared a similar systematic accounting of policy accomplishments with express reference to them, these coastal policies have provided a framework for SPO's development of annual proposals to the National Oceanic and Atmospheric Administration for funds under Section 306 of the Coastal Zone Management Act ("CZMA") to support the State's federally approved coastal zone management program, five-year strategic plans for improvement of the program as required by Section 309 of the CZMA and related policy efforts. The State's coastal program, administered by SPO, supports a broad range of education, research, technical assistance and regulatory activities at multiple state agencies, including principally SPO, DEP, DMR and, DOC, that implement Maine's networked program.

INFORMATION GATHERED:
EXISTING NEARSHORE GOVERNANCE

Statutory and Regulatory Programs and Authorities

Given the wide variety of uses and activities in the coastal zone, it is not surprising that there is a complex mosaic of management. Municipal, state and federal authorities often overlap in the same geographic coastal space. The regulation of certain activities may require the involvement of multiple agencies at multiple levels of government. Figure XX provides a snapshot of all the entities that have a role to play, and some information about their basic responsibilities.

Municipal Programs and Authorities: Under home rule authority, a town may assume certain regulatory powers. However, local ordinances and regulations cannot conflict with applicable federal or state statutes or regulations. In some cases, the state or federal government has expressly delegated authority to local governments to enact more stringent standards (such as a number of environmental laws). In the nearshore environment, primary municipal programs and authorities include land use ordinances and zoning, harbor management, soft shell clam ordinances, and intertidal leases.

Maine State Agency Regulatory Programs and Authorities: In Maine, the inner boundary of state ownership is the mean low water mark, unless the State owns the adjacent shorelands. Maine common law, derived from the Massachusetts Colonial Ordinance of 1641-7 allows private individuals to own submersible lands that lie between the mean high and mean low tide lines. The public, however, has certain rights of use in this intertidal area, including rights of fishing and navigation. The Submerged Lands Act sets the outer boundary of State waters at 3 nautical miles from the coastline. There are seven state agencies with programs or authorities in Maine's coastal waters. These include:

Department of Marine Resources (DMR): DMR is responsible for fisheries management, aquaculture leasing and monitoring**,** shellfish toxin monitoring; anadromous fish restoration**,** and coastal permit review

Department of Environmental Protection (DEP): DEP's role in the nearshore marine environment centers around water quality protection through the regulation of discharges – both from vessels and shore based facilities. Authorities and programs include: discharges from vessels (Marine Sanitation Devices; Pump-out Program; Commercial Passenger Ships; No Discharge Zones); other discharges (Combined sewer overflows (CSOs); Overboard discharge; National Pollution Discharge Elimination System (NPDES); stormwater management; erosion and sedimentation control; site law; issuance of permits under the Natural Resources Protection Act; classification of Maine waters; watershed management; Nonpoint Source Water Pollution Control grants; and providing technical assistance to municipalities for the adoption, administration and enforcement of shoreland zoning ordinances.

Department of Conservation (DOC) - Bureau of Parks and Lands (BPL) and Land Use Regulation Commission (LURC): BPL has authority to lease state-owned submerged lands for erection of permanent or seasonal structures and other activities, such as construction of wharves and marinas, dredging and filling (the exception is aquaculture leases, which are handled by DMR). LURC regulates activities in "Unorganized Territories" which include many coastal islands.

INFORMATION GATHERED:
EXISTING NEARSHORE GOVERNANCE

Department of Inland Fish & Wildlife (IF&W): IF&W manages seabird populations and habitats; consults on impacts of development for coastal seabirds (including Endangered & Threatened seabirds and Bald Eagles under the Maine Endangered Species Act); funds and develops recreational public access; partners with other state and federal agencies in oil spill response programs; and manages sea-run brook, brown and rainbow trout fisheries

Atlantic Salmon Commission (ASM): ASM is responsible for protecting, conserving, restoring, managing and enhancing Atlantic salmon habitat, populations and sport fisheries within historical habitat in all (inland and tidal) waters of the State of Maine.

Maine State Planning Office, Maine Coastal Program (MCP): Maine has a federally approved Coastal Zone Management Plan (CZMP), and may therefore review any federal activities (either projects proposed by a federal agency or licensed or permitted by a federal agency) for consistency with the enforceable policies of the CZMP (the core laws).

Maine Department of Transportation (DOT): DOT's involvement in the coastal zone includes: Shipping (cargo ports)/Ferries; the Surface Water Quality Protection Program (SWQPP); wetland mitigation; and NEPA compliance.

Federal Agency Regulatory Programs and Authorities: The United States Exclusive Economic Zone (EEZ) extends from the outer boundary of state waters (3 miles) out to 200 miles from shore. However, the federal government's legal authority in navigation, commerce and security extends shoreward into state waters. The federal agencies highlighted below are those that have a role in regulation or review of activities in state waters.

National Marine Fisheries Service (NMFS): NMFS is responsible for fisheries management, protected resource management, and acting as a review agency on coastal projects.

US Fish and Wildlife Service (USFWS): USFWS acts as a review agency on coastal projects with impacts on resources under their jurisdiction. USFWS has responsibility for National Wildlife Refuges, Endangered and Threatened species, migratory birds, and other natural resources.

Environmental Protection Agency (EPA): EPA is responsible for water quality protection and monitoring. The primary mechanism in the Clean Water Act (CWA) regulating the discharge of pollutants is the NPDES. They also participate in disposal site selection in cooperation with other state and federal agencies.

US Army Corps of Engineers (USACOE): USACOE has jurisdiction over projects located on intertidal or submerged land through issuance of permits authorizing activities in or affecting navigable waters of the U.S., and adjacent wetlands, including the discharge of dredged or fill material, and the transportation of dredged material for the purpose of dumping it into ocean waters. USACOE also is responsible for navigation project development and maintenance, including maintenance dredging of channels and anchorages, construction and maintenance of breakwaters, and disposal site selection and monitoring.

US Coast Guard (USCG): USCG is responsible for the placement and maintenance of navigational aids, permitting of bridges and consultation with the ACOE on other activities that have the potential to impact navigation, as well as boating safety and search and rescue.

Federal Energy Regulatory Commission (FERC): FERC regulates the interstate transmission of natural gas, oil and electricity as well as natural gas and hydropower projects.

New governance approaches: co-management in Maine's fisheries

"Co-management" is a management structure in which some authority is shared between the government that holds public trust responsibilities for resources and the stakeholders, such as fishermen, who use the resources. Co-management contrasts with traditional, top-down governance structures and has not been widely used in fisheries management. Maine has successfully implemented a form of co-management in its lobster fishery, through the formation of lobster management policy councils.

In 1995 the Maine Legislature gave the Commissioner of Marine Resources the authority to create lobster management zones. By rule, the Commissioner established seven zones, each of which has its own council of members democratically elected by fishermen through a mail ballot. The size of the council depends on the number of lobstermen in the zone; 83 lobstermen serve on the seven councils, each representing roughly 100 lobstermen. Originally, the zone councils were given authority by the Legislature to send out to referendum three management measures: limits on the number of traps per fisherman, limits on the number of traps on a trawl, and limits on days and times when fishing is allowed. A council may submit proposed rules to the Commissioner if the proposed rules are approved by 2/3 of those voting in the referendum. Additional authorities were later granted by the Legislature, including the authority to survey a zone and make recommendations regarding the entry/exit ratio for the issuance of new licenses.

The original interest in moving toward co-management in the lobster fishery was because of the difficulty in making management decisions that were appropriate over the entire range of the resource. Fishing practices in the lobster fishery, such as the amount of gear fished, varied widely within the state. Different local conditions made it difficult to take needed action, such as instituting trap limits and controlling effort, on a statewide basis. Co-management allowed for development of rules on a smaller ecological and human scale, and provided a mechanism to enlist fishermen in developing measures to prevent overfishing.

Analysis of the information gathered about existing nearshore governance led to several findings, including:

- After almost 18 years, the Coastal Policies Act has fallen into obscurity. While municipalities have a mechanism for updating local comprehensive plans, there is no provision for ongoing interagency work on the Coastal Policies Act. Yet, Maine's vision of careful multiple use management is as valid today as when it was initially enacted. The Coastal Policies Act provides a basis to develop a highly visible, integrated approach to state management of coastal resources. Improvements are needed to implement the Act.
- There is a general concern about how the state will exercise its public trust responsibilities. Some believe that a stronger vision with implementing policies will help reduce conflict by clarifying the State's position on various coastal uses.

CURRENT NEARSHORE MANAGEMENT INITIATIVES IN MAINE

State agencies are now undertaking or planning a number of important nearshore management related initiatives to advance coastal management policy objectives. These initiatives were compiled to highlight and promote existing programs that are integral to efforts to improve nearshore management. Recommendations included later in this report should support and be well coordinated with these existing management initiatives.

Management of intertidal and submerged lands

- *Protecting eelgrass habitat.* There are differences between the level and nature of protection of eelgrass habitat under state land use and fisheries management programs. In consultation with the mussel harvest industry, DMR is identifying conservation areas that will be protected from dragging and which will be periodically reviewed and revised, and is working to further efforts to develop harvest techniques and technology that minimize harm to the non-target communities. DMR envisions public education and outreach efforts to address topics such as the differences between permanent habitat alteration resulting from structures and temporary impacts associated with fishery harvest practices; and the dynamic nature of eelgrass-mussel communities. In addition, subject to available funding, DMR hopes to fund necessary research to characterize and quantify the ecological value of eelgrass in the context of the overall surrounding area. This work would look at patch dynamics and the importance of ecotones and edges to fish communities. DMR's work on eelgrass issues, which has been identified as a priority within the Maine Coastal Program's 2007-2012 strategic plan (309 Plan), may help inform regulatory decisions by providing better understanding of the site-specific resource value of eelgrass beds and the nature of any necessary restrictions on development opportunities needed to protect that resource value.

- *Minimizing adverse impacts of docks and piers.* There are concerns regarding the efficacy of current laws and rules in addressing the adverse effects of temporary, seasonal docks (e.g., impacts of resting on flats at low tide and disturbance when docks are installed and removed) and the potential for significant cumulative adverse effects to scenic values, waterfowl and habitat values. Tools to address these concerns include: technical and financial assistance to encourage siting of common docks, such as a model ordinance; better natural resources-related information to guide decision-making; and grants to support management of harbors and related nearshore resources subject to municipal jurisdiction. In consultation with DEP and the Bureau of Public Lands, SPO has been working on development of this guidance.

Wildlife and habitat management

- *Understanding and minimizing impacts of aquaculture on seabirds.* Potential effects of aquaculture include disturbance of nesting seabirds, entanglement of migratory birds in protective netting used for some aquaculture operations, and disturbance of bald eagle nests (e.g., where the ¼ mile setback required under the aquaculture siting rules is over open water). For the past two years, DMR has engaged seabird biologists at DIFW, USFWS, and USACOE and the finfish aquaculture sector to develop a research priorities list and seek funding to begin answering questions related to disturbance. Study results may be useful in

developing amendments to the aquaculture leasing statute and/or DMR's implementing rules, if and as necessary, to address study findings. This effort has been identified as a priority in the current Maine Coastal Program 309 Plan.

- *Assisting municipalities to consult with DIFW about "essential wildlife habitat."* In some cases, municipalities may not consult in a timely manner with DIFW regarding activities that may adversely affect habitat critical to threatened or endangered species ("essential habitat"). Subject to available funding, SPO, in consultation with DIFW, intends to evaluate and support additional outreach, education and technical assistance on this issue through SPO's CEO program, coordination with the Maine Municipal Association on an article in the Maine Townsman or other guidance for municipalities.

Water quality

- *Improving marine water quality*. DEP conducts many programs that work to improve marine water quality including wastewater treatment plant construction programs, combined sewer outfall abatement efforts, grant programs for removal of overboard discharge systems and replacement of malfunctioning septic systems, technical assistance to companies and municipalities for toxics reduction and pollution prevention, redevelopment initiatives for former industrial sites (known as "brownfields") and stormwater management planning and technical assistance. The State Planning Office and DEP collaborate to provide assistance to towns on solid waste and recycling. SPO's Coastal Program and Maine DEP also collaborate to carry out Maine's Coastal Nonpoint Pollution Program which includes technical assistance and grants to coastal watershed groups for surveys, planning, capacity building and pollution remediation, the Clean Marinas and Boatyards program (a certification program for facilities that control pollution), the Nonpoint Education for Municipal Officials Program (an education program).

- *Developing total maximum daily loads (TMDLs) for state waters.* On a prioritized basis, DEP is currently involved in the lengthy and complex process of establishing total maximum daily loads (TMDLs) for state waters that will inform decisions regarding water quality management, including waste discharge licensing. Establishment of TMDLs for river systems necessarily comes before any effort to set TMDLs for nearshore waters into which those rivers flow. Subject to available funding and its assessment of then existing agency priorities and the environmental need and benefit, DEP may after completion of the riverine phase of its TMDL effort, calculate TMDLs for individual bay and estuarine systems which consider the potential effects of individual discharges (point and non-point, including those related to aquaculture operations) to ensure that the cumulative effects of contaminants are understood and addressed. Such an effort may involve steps such as setting ecological targets or objectives for specific embayments and estuarine systems; amending Maine's Water Classification System, if and as necessary, to recognize natural variability of coastal waters and the unique attributes of individual bays and estuaries; and initiating a coastwide characterization of existing water quality and assimilative capacities for bays and estuaries.

- *Implementing and improving Best Management Practices (BMPs) to address non-point source pollution (runoff) issues.* In 2005, DMR completed development and promulgation of a significant revision of the State's stormwater regulations, which together with BMPs and other erosion

control measures called for under state law are primary means by which the State provides for control of non-point source pollution to help protect and improve coastal water quality. When appropriate in light of its assessment of and experience with the efficacy of its current stormwater BMPs, which focus primarily on freshwater systems, and subject to available funding and its assessment of then existing agency priorities and the environmental need and benefit, DEP may evaluate development of BMPs more closely tailored to marine water quality issues. Such an effort may involve cooperation with MaineDOT in design and implementation of a study to evaluate the efficacy of current BMPs to address nitrogen removal and other pollution control objectives of particular importance in estuarine areas. MaineDOT will continue to implement its BMPs for all projects to ensure continued or improved coastal water quality.

- *Assisting municipalities to maintain catch basins.* Management of catch basins needs to be improved in some places to prevent introduction of pollutants into coastal waters. MaineDOT routinely implements its maintenance practices for catch basins to prevent discharges of pollutants to coastal waters. MaineDOT, in conjunction with SPO/coastal nonpoint source project, intends to develop and distribute guidance for municipalities regarding maintenance of catch basins.

- *Identifing and remediating septic systems that contribute to beach closures and other coastal water quality issues.* Malfunctioning or inappropriately sited septic systems continue to present water quality issues that adversely affect recreational and commercial harvest opportunities in some coastal areas. Through SPO's Clean Maine Beaches program and other state authorities, SPO, DEP, the Department of Health and Human Service, and affected municipalities have all contributed significant time and resources to address potentially septic-related problems identified through water quality monitoring. Such remediation efforts are resource and time-intensive, typically involving significant field work and costly lab analysis to identify and investigate potential pollution sources. SPO, DHHS and DEP are currently exploring practicable ways in which further progress can be made in this area, including use of stormwater utilities (potentially created through interlocal agreement) to address septic and other water pollution issues facing beaches and other areas with significant public and economic value.

- *Conducting Marine Monitoring Programs.* Ongoing monitoring programs that assess and document coastal water quality conditions in Maine include the Surface Water Ambient Toxics Monitoring Program (SWAT), the Maine Healthy Beaches program, testing by industrial and municipal plant operators (as required by state licenses), DMR's water quality sampling for the Shellfish Sanitation Program, and DMR's phytoplankton monitoring program. Ongoing special studies are also done in Casco Bay as part of the National Estuary Program.

Invasive species control and management

- *Addressing marine invasive species issues.* Existing state approaches regarding marine invasive species may be inadequate in a number of areas. Yet effective approaches to marine invasives efforts may be more dependent on coordinated action at the regional and national level than additional unilateral state efforts. Consequently, DEP and DMR have determined

that continuation of current efforts to monitor and participate in Northeast regional efforts to address marine invasives issues is among the most important means to addressing this issue in Maine. In addition, DMR and DEP intend to address as and when practicable additional agency recommendations in their 2006 report to the Legislature's Marine Resources Committee, which are focused on research and monitoring, rapid response protocols, outreach and education, and regional ballast water management plans. See http://www.maine.gov/dep/blwq/report/marine_invasive2006.pdf

Maintenance and enhancement of ports and harbors

- *Identifying and addressing dredging policy issue.* In some circumstances, the high cost of sediment testing, dredging, and dredged material disposal, due in part to federal testing requirements, may inhibit private investment and development of piers, marinas and related waterfront infrastructure and commerce. Decreases in federal funds available for maintenance dredging of federal navigation projects makes it increasingly difficult for relatively small federal navigation projects in Maine and elsewhere in New England to compete for funding nationally. The interagency dredging team, jointly staffed by SPO, DEP and MaineDOT and overseen by the Land and Water Resources Council, provides an on-going means for the State, in consultation with stakeholders and counterparts in other states, through EPA's regional dredging team, to identify and address dredging policy issues of concern to the State, including exploration of options for development of confined aquatic disposal ("CAD") cells to address dredging disposal needs in select areas, facilitation of beneficial use of dredged materials , e.g., in conjunction with highway and other public works projects, and enhanced coordination of the federal-state environmental review process.

Promoting regionally-based land use planning

- *Considering regional impacts and benefits of development projects.* Although proposed for a location in a single community, a development proposal may have significance both in terms of potential economic benefits and potential adverse environmental effects that should be considered from a regional perspective. SPO and DEP are currently evaluating options, in coordination with the work of the Community Preservation Advisory Committee and related efforts, for amendment of the Site Location of Development Act ("site law"), Growth Management Act, and other current state laws to ensure that this regional perspective is adequately considered. SPO intends to ensure that nearshore management issues are considered and addressed and opportunities for inter-municipal cooperation on such issues are considered and supported as an aspect of current state efforts to improve the efficacy of municipal comprehensive planning and related land use laws as appropriate.

INFORMATION GATHERED:
INTERAGENCY COORDINATION AND COMMUNICATION

COORDINATION AMONG STATE AGENCIES INVOLVED IN NEARSHORE MANAGEMENT

Coordination among government agencies involves many different types of mechanisms – including agency and interagency teams, ad hoc work groups, printed materials, e-mail list serves, etc. Coordination also occurs at different topical levels from licensing and permitting to policy development. Existing, successful types and examples of state agency coordination include:

Type of Coordination	Current Programs	Timing
Information sharing	Interagency meetings, sponsored by Maine Coastal Program and others	Occasional
Efficient and effective permitting and licensing; permit streamlining	Ad hoc interagency teams for large-scale developments (e.g., LNG) Advance identification of problems; coordination of state agency comments	Ad-hoc
Joint work program development	Maine Coastal Program federal grant application	Annual
Interagency collaboration on projects via formal and informal teams	Numerous examples including: dredging; clamflats; public access	Ad hoc; some formally established like Public Access Work Group
Coastal assessment and strategy development	Interagency development of the Maine Coastal Plan under Section 309 of the CZMA	Every 5 years; most recent Maine Coastal Plan 2006
Interagency policy development	Land and Water Resources Council Natural Resources Subcabinet	Quarterly Monthly
Interagency reviews regarding compatibility with state policies & criteria	Review of municipal comprehensive plans; Review of selected grant applications for distribution of state funds (e.g., Small Harbor Improvements, Working Waterfronts)	Ad hoc
Collective measurement of success	Maine Coastal Program performance indicators; NOAA review of the MCP	Annually Every 3-5 years

Ultimately, practicing effective governance where multiple agencies have jurisdiction requires excellent coordination. Staff organized a meeting, held on September 18, 2006, in Hallowell, Maine to solicit ideas from state agency staff on opportunities for addressing select issues from a regional perspective and for improving interagency coordination. The following is a summary of the main comments and observations provided at the meeting by state agency participants:

- There was general consensus among agency participants that there is currently a high degree of interagency communication and collaboration on nearshore management related issues and initiatives. Current examples include MaineDOT's Gateway 1 and Sagadahoc projects, interagency working groups addressing LNG and potential tidal power proposals and the coastal water access planning group. The apparent discrepancy between this general agency perspective and public comments suggesting the need for more effective interagency coordination may be explained in part by the fact that these interagency collaborations are often issue-specific and focused on regulatory matters, are of limited duration and are not made known to the public generally in a way that indicates their collective scope.

INFORMATION GATHERED:
INTERAGENCY COORDINATION AND COMMUNICATION

- State agencies are for the most part not organized regionally such that there are designated point persons who are knowledgeable about the policy issues or concerns facing discrete regions and thus able to direct the public to pertinent information or decision makers. State agencies noted that the net benefits of this type of reorganization to achievement of their programmatic missions and related priorities is not readily apparent and that any decision about how best to reorganize and redeploy agency efforts should be based on a prior and more detailed assessment of agencies' missions, program responsibilities and priorities and resources.

- Any multi-agency strategic planning effort aimed at further integrating agencies' nearshore management efforts must take into account their existing missions, related programmatic priorities and funding related commitments. As an initial step in such a strategic planning effort, it would be useful to develop a multi-agency matrix that depicts this information.

- In order to develop or support regional initiatives efficiently and effectively, the State needs to provide for the requisite staff capacity and expertise, perhaps through enhancement of efforts by existing regional councils or by the State Planning Office. Any new state efforts to support or enhance regionally-based efforts should be well-coordinated with SPO's legislatively-directed effort to promote and enhance regionally-based management through the land use planning laws and programs it administers.

- There was general concern among state agencies that any new state effort to support regional initiatives, whether through reorganization or redirection of existing resources or through use new resources, should not diminish or dilute but be designed to support and enhance existing efforts to address agency priorities.

While it was beyond the scope of this study to survey the satisfaction of municipal officials and the development community regarding their experience with state agency staff and permitting processes, numerous comments were received throughout the study process that may point to the need for an more in-depth look at the quality of print and web materials, training of state agency staff and municipal officials, and opportunities for additional permit streamlining.

While some participants in the bay management study found it inherently problematic that more than one agency has jurisdiction in the nearshore environment, large scale restructuring of state government to consolidate activities is potentially wrought with as many problems as it would have solutions, and cost-savings would likely be minimal. However, more upfront articulation of joint agency goals and progress toward them is needed to ensure that various agencies are not working at cross purposes.

At the policy level, although there is no permanent council for marine policy coordination, the State's Land and Water Resources Council is an existing mechanism for high-level coordination and policy development. The Council's willingness and ability to create subcommittees and ad-hoc working groups could provide the ability to focus on nearshore policy coordination as needed.

MODELS OF INNOVATIVE NEARSHORE MANAGEMENT

As part of the Legislative directive regarding the bay management study, the Land and Water Resources Council was tasked with: "drawing on national and international examples, define a range of approaches for bay management that is feasible for use in Maine." Staff cast a wide net to collect information from as many sources as possible, to inform the development of the range of approaches. This effort included collecting information on existing examples of innovative approaches to nearshore marine management both nationally and internationally, exploring proposed models raised by the public during both the first round of public meetings and the Belfast meeting, and exploring models with which the Steering Committee has specific experience or knowledge. This collective information was then used by the staff to develop a range of approaches for consideration for implementing a form of bay management in Maine.

The purpose of examining other options was largely to ensure that the study considered as many structures and approaches as possible. At the same time, staff worked to characterize the specific concerns and desires that were being raised by the public about Maine's nearshore marine environment. Models that were explored include:

International:

- European Union: Integrated Coastal Zone Management
- Ireland: Bantry Bay; Coordinated Local Area Managements (CLAMS)
- Scotland: Cromarty Firth Liaison Group; Fair Isle Marine Environment and Tourism Inititiative; Firth of Clyde Forum; Forth Estuary Forum; Moray Firth Partnership; Solway Firth Partnership; Tay Estuary Forum
- New Zealand: Regional Coastal Plans; Oceans Policy
- Australia: Oceans Policy; Great Barrier Reef Marine Park
- Tasmania: Coastal Policy; Marine Protected Areas; Derwent Estuary program
- Canada: Eastern Scotian Shelf Integrated Management; Integrated Coastal Management in Nova Scotia; British Columbia Coastal Planning Process

National:

- Federal: Bureau of Land Management (BLM) Resource Advisory Council (RAC); National Estuary Program (NEP)
- Massachusetts: Coastal Zone Management; Massachusetts Ocean Management Initiative
- Washington: Coastal Zone Management; Northwest Straits; Shoreline Master Program
- Oregon: Coastal Zone Management
- Rhode Island: Coastal Zone Management
- New York: New York Ocean and Great Lakes Ecosystem Conservation Act
- California: Ocean Protection Council
- Hawaii: Coastal Zone Management - Ocean Resource Management Plan process

We also looked at structures that are currently in place in Maine that are either successful in engaging users or stakeholders in management, and/or managing at more local or regional levels:

- Fisheries co-management structures: Lobster Zone Councils, Sea Urchin Zone Council

- Zoning tools: Land Use Regulation Commission (LURC)
- Existing mechanisms for increased local control: Shoreland Zoning Act, Growth Management Act, Municipal Shellfish Conservation programs, Municipal Shellfish Aquaculture permit, interlocal cooperation
- Resource Centers: Penobscot East Resource Center, Cobscook Bay Resource Center

While it is instructive to examine the innovative structures for nearshore management that are being tested in other parts of the world, it is also important to recognize that there is not an existing model that could be adopted "wholesale" for immediate implementation in Maine. Given the very specific mix of governance and management needs, cultural context, and resources available, any bay management approach will need to be designed for the particular area for which it is intended. In developing an approach that will work for Maine, examination of these models provided a better understanding of the range of structures that could be adapted for use here. This range included: improved fisheries management; marine protected area development and management, regulatory structures, non-regulatory structures, planning and zoning. These structures were applied at all scales from nationally to locally.

Based on analysis of this range of examples, from both home and abroad, and on the ideas received from the public (see Appendix X, worksession and public meeting), we developed a set of options for bay management in Maine:

- Enhancements to the Existing Governance System, including:
  - ways to address gaps identified in the current management system

- Regional approaches to management, including:
  - regional councils recognized in statute and with specific authorities,
  - locally based regional initiatives supported by the State,
  - regionalizing state government

- Bay planning, including:
  - comprehensive bay plans,
  - advisory plans for selected uses,
  - resource management plans,
  - action plans

- State Boards, including:
  - appellate
  - planning
  - conflict resolution
  - permitting

The options for bay management in Maine did not include altering innovative nearshore fisheries management. The existing co-management structures (e.g. Lobster Zone Councils) do not need to be changed to allow for the development of bay management. However, as with the other models examined, the concepts behind this process may provide useful lessons for developing new types of improved nearshore management structures.

PUBLIC INPUT IN THE BAY MANAGEMENT STUDY

The general public and specific stakeholder groups provided input throughout the course of the bay management study. The information summarized below regarding the concerns, opportunities and ideas for bay management comes from three main methods of involvement: formal public meetings; input at 11 Steering Committee Meetings; and direct consultation with specific stakeholder groups, boards and individuals. These stakeholders represent a range of interests from aquaculture and conservation groups to fisheries and municipalities.

Description of the input received during the two largest venues for public input are below, followed by a summary of major findings derived from analysis of all the public input.

Sharing Public Waters: A Community Discussion (Winter 2005)

To kick off the bay management study, we held a series of public meetings entitled "Sharing Public Waters: A Community Discussion" from January through March 2005 in five coastal towns: Eastport, Ellsworth, Rockland, Portland and Wells. The input received at these meetings was compiled and analyzed (see appendix for complete documentation). The information collected in the January – March 2005 meetings was a snapshot of the issues present at the time, as characterized by those who chose to attend the meetings. It is fully expected that the problems faced by an area will continue to evolve, and that bay management should be structured to anticipate, to the degree possible, future needs. In summary, the major themes and ideas that emerged from these meetings include:

1. A large number of issues and concerns were identified along the Maine coast. These range from ecological issues related to the impacts of land- and marine-based activities on the marine environment, to user conflicts related to multiple users impacting each other and to different cultures and ideas about the appropriate use of Maine's coast.
2. We asked meeting participants to identify what does and does not work in terms of coastal management. We found that people were often not familiar with what coastal management entails. However, the discussion of 'local input' and 'science-based decisions' spurred more comments than any of the other aspects of management.
3. One of the underlying ideas that emerged at all the meetings was the need to pay more attention (in both governance and science) to the relationship between land and water. What happens on land is understood to impact nearshore environments and users, and vice versa, but there seems to be little documentation of this or consideration of it in decision-making.
4. Although some issues are common to many bays, as one might intuitively expect, the specific mix and prioritization of problems is unique to each specific area or bay. In other words, the issues relevant to the people of any given bay differ by region.

Steering Committee Work Session and Public Meeting (February 2006)

The Steering Committee Work Session and Public Meeting was held to provide an opportunity for those who have followed this study to share and explore specific ideas about changes they would like to see in stewardship and management of our nearshore waters. Close to 60 participants shared their ideas during this full day meeting. Some of the major ideas that arose during this meeting are:

INFORMATION GATHERED:
PUBLIC INPUT

1. Regional council systems were proposed by many participants as a way to comprehensively address multiple issues in a bay. It was more difficult, however, to nail down the logistics and funding sources for this type of proposal.
2. Issue-specific ideas were also proposed ranging from eelgrass restoration to urchin fishery management, suggesting that some people see bay management as a way to consider managing specific resources with a more holistic perspective.
3. Finally, some proposals focused on state-level improvements such developing data standards for nearshore data or creating a state resource management board.

Throughout the course of the bay management study, several themes emerged from the input we received from stakeholders and the general public. A summary of these major findings is as follows:

- The interface and relationship between the land and marine waters is often not explicitly considered in governance or in scientific inquiry. While there are certain programs that do look at the connection between land-based activities and marine waters (e.g. Overboard Discharge removals, Clean Marine Program, water access), state and municipal regulations tend to focus on shore-side issues only (such as land-use regulations and zoning requirements) or marine uses only (such as fisheries regulations). Similarly, most researchers specialize in terrestrial or marine science, but not the interface between them. Most notably is a dearth of information about the impact of land uses on marine water quality and species. What goes on in the nearshore waters can also impact land: whether it is the impact of increased numbers of kayakers stopping at nearshore islands or the economic impacts of a community's fishermen. There is a greater need to understand and govern how land-side regulations, programs and uses impact marine health and use, and how marine regulations and use impact environmental and social conditions on land.

- While there is currently no widespread crisis, there is a pervasive and persistent sense that cumulative changes, past and potential, in the nearshore environment warrant improvements in our current systems of resource protection, governance and public involvement.

- There are signs and symptoms that Maine's current methods of nearshore management need improvement. Evidence that growth and change in the nearshore environment are creating social and environmental problems includes:

  a. Unwieldy Permitting Processes: Lengthy and contentious permitting processes and legal challenges (for aquaculture leases, docks, marinas, boat ramps, energy facilities) create an uncertain business climate for some marine-dependent industries, and a level of uncertainty associated with permit-by-permit allocations of space.

  b. Citizen Involvement and Action: Coastal residents have mobilized in greater numbers in recent years and continue to do so to create policy and regulatory changes. Recent results from citizen initiatives in the nearshore include the designation of no discharge areas and the designation of new protected areas. Traditional methods of public participation, at times, do not meet the needs of either citizens or government officials.

  c. Use Conflicts: In this study, a wide variety of use conflicts were examined, including situations where two or more parties literally wanted to use the same space at the same

time, or more philosophical conflicts regarding different visions for use of nearshore waters. Population growth and projected increases in use of the nearshore will likely result in additional conflicts in the future.

d. Degraded environmental conditions: Nearshore environmental conditions are, in some locations in Maine, compromised. Despite activities to lessen polluted runoff entering coastal waters, non point source pollution remains a problem in some locations along Maine's coast as evidenced by closed shellfish beds and swimming advisories. Low dissolved oxygen levels and toxic pollution are also problematic, albeit in isolated areas. Some nearshore fisheries continue to decline and some systems have not recovered despite restoration attempts. Important nearshore habitats like eelgrass beds are also being negatively impacted by development and fishing practices.

- There is an overall desire for Maine to advance and work towards a clear vision for coastal waters.

- As evidenced by participation in the study, people want to be engaged in 'bay management' in varying ways and to different degrees. Some people are not likely to be involved with many aspects of bay management other than those that will directly impact their ability to proceed with their livelihoods. Other user groups will get involved in bay management if it is seen to pertain to specific issues in which they are interested. Finally, some people have been highly engaged in the bay management study, and consider it to be the first comprehensive look at nearshore management issues in Maine. These participants are interested in crafting an innovative nearshore governance method and are motivated to participate in bay management as it evolves. As bay management proceeds, it is important to recognize the different levels of engagement in the process and types of issues likely to draw different groups to the table.

- There is a tension between having strong state priorities and vision guide future improvements in nearshore management and allowing local issues that emerge guide the direction of bay management. Strong state priorities and direction are needed in order to make sure that public trust is protected, both in terms of ensuring sustainable harvests and in terms of protecting valuable resources. Without clear state guidance in this regard, the concern is that coastal management will be haphazard and may not result in a healthy and viable nearshore system. However, encouraging and supporting regions to discover and act on their own issues is important because each region is unique both ecologically and socially. Local people will be motivated to get involved in issues that are most relevant to their area. This allows coastal management to respond to regional differences, rather than be a one-size-fits-all approach. While these dual ideas seem to set up a tension in the bay management study over what we should focus on, they in fact point to the need for the final recommendations to balance both of these needs.

SUMMARIZED RESULTS OF TWO BAY MANAGEMENT PILOT PROJECTS

Two community-based pilot projects were funded for one year (Winter 2005-Winter 2006) to carry out bay management pilot projects. A bay management study staff team member attended meetings to assist the groups and to bring lessons learned back to the larger bay management study.

The Taunton Bay pilot project was carried out by the Friends of Taunton Bay (FOTB). Taunton Bay is located in the upper part of Frenchman's Bay. It is a small, enclosed bay surrounded by three towns. The FOTB is a conservation advocacy group that already existed in the area. In the past, they mostly conducted volunteer monitoring and advocated for conservation of their bay's resources through local and legislative avenues. Their grant proposal stated that they intended to: Identify and bring together stakeholder groups; Develop a suite of indicators of ecosystem health; Conduct a socioeconomic inventory; Create GIS maps; and Develop a potential new model of decision-making for bay management. They were successful in collecting and compiling a tremendous amount of data and maps, in conducting limited community outreach and in providing specific bay management principles. Their challenges were due to internal conflicts, having a small group with limited resources to do proposed activities, and being perceived negatively by some members of the local community (See Appendix X for Executive Summary from Study Report).

The Muscongus Bay pilot project was run by the Quebec-Labrador Foundation (QLF), a non-profit organization focused on conservation and community development. The Maine office is staffed by 1-2 people who organized this project. They did not have much of a history or known presence in the area before the project, and they created a Muscongus Bay Project Steering Committee to advise the project. This committee was primarily made up of local professionals in the conservation field. Muscongus Bay is a larger bay in the Midcoast region. It is surrounded by 10 towns and opens up to the ocean. The QLF project planned to: Learn what types of issues were important to people in the area by conducting a written survey and user group round tables; Develop GIS-based maps; and Assess the likelihood of the citizens and towns surrounding the bay to develop a 'bay identity' and work together through a one-day forum. They were most successful in their work to introduce the concept of Muscongus Bay as an identity for towns and citizens in the area, and to use innovative engagement techniques. Their primary challenges were related to having only one full-time staff person and no volunteers, and not having a clear goal or direction for the final product of their project (See Appendix X for Study Report).

The following is a summary of some of the lessons learned from the pilot projects. See the appendix for a more complete staff analysis of the pilot projects.

1. The pilot projects did not represent their communities as a whole; certain voices (especially harvesters and municipal officials) were underrepresented. Be clear about which topics require involvement by certain groups (i.e. harvesters in fisheries issues, municipalities in water access issues). Target specific groups for increased involvement in pieces that matter to those groups.
2. The pilot projects struggled with when and how to get new people involved. Being involved in a regional group could mean helping to plan, coming to internal meetings, attending a public session, participating in a GIS exercise or answering a survey. There is likely to be only a core group that does the majority of planning in any given initiative. Yet this group needs to be able to know when and how to reach out to others, whether for 'low involvement' (e.g. surveying concerns) or 'high involvement' (e.g. completing specific projects).

3. The pilots might want more say over what happens in their area but they do not want the responsibility for having authority over managing certain uses. Only those interested in community-based fisheries management expressed a desire for some transferred authority. Thus, the most appropriate role at this time for regional groups is improving coordination at a regional level and carrying out discrete projects such as data collection rather than exercising authority to manage any particular use.
4. While almost any issue could be examined and managed at a regional level, both groups found that different issues require different scales. Some things are best dealt with at a town level or state level. Others could benefit from regional cooperation – it's these issues that should be tackled first.
5. Even though some coastal issues are most amenable to regional solutions, there is currently no existing forum to advance nearshore management issues on a regional scale.
6. Community involvement can, but will not necessarily meet other needs identified during the bay management study such as: encouraging regional thinking, improved government coordination, improved use of science, improving resource management

In addition to these general lessons learned from the pilot projects, we also gathered suggestions on what is needed from the State to enable community groups to carry out regional initiatives.

- Provide clear guidance and expectations without imposing a strict structure
- Provide scientific data and GIS support at a regional level
- Maintain regular communication and coordination with regional initiatives
- Clarify the relationship between fisheries management and bay management

INFORMATION GATHERED:
BUDGET CONTEXT

BUDGETARY CONSIDERATIONS

While the bay management study contemplates a variety of enhancements to Maine's methods of nearshore management, the ability to pay for program improvements and new initiatives with existing resources is limited. While the Council does not want to limit creative thinking about potential funding approaches for this work, is it also important to accurately describe the current budget context within which all state natural resource programs are operating.

Budgeters in Maine are currently dealing with a $700 million dollar gap in the 2006-2007 biennial budget and an anticipated $425-$450 million gap in the 2008-09 biennial budget. This budget gap (or structural gap) represents the difference between potential expenditures, based on existing programs (without any expansions, and adjusted for inflation), and all expected revenues, based on existing sources of revenue (with no new taxes or fees). Decisions are then made in the state legislature about whether to spend the full projected cost of programs and raise money to do so, or to cut programs to save money. To reach a balanced budget in recent years, Maine has relied on federal relief funds, instituted a hiring freeze, deferred expenditures and made spending cuts.

Health care and a statutory obligation to take on more education spending are major factors leading to the budget gap. In recent years, over 75% of Maine state government appropriations have gone to education, health and human service programs.

There are already many critical unmet needs in the area of natural resource and environmental protection. One example is an estimated need for approximately $290 million in wastewater treatment facilities to replace outdated systems over the next five years. Decreases in available federal matching funds (cut by $5 million for this program in 2006) and a stalemate over the authorization of bond funds has recently significantly affected this program.

All told, the rising costs of essential education and health services, low bond utilization and efforts to close the state's structural gap have significantly impacted Maine's environmental programs.

In terms of federal funding, Maine's coastal zone management grant from the Department of Commerce, National Oceanic and Atmospheric Administration has been capped for at least the last eight years. Federal funds that previously supported grant programs to municipalities and other coastal partners have increasingly been used to support state functions. Pass through grant funds to regional planning councils has remained static as well. Relatively new programs like the Coastal Nonpoint Pollution Program (also known as "6217") have been funded only sporadically, even though several national reports indicate that pollution from diffuse sources is one of the top threats to coastal water quality.

As other parts of this report document, there is increasing interest in place-based management, that is, developing scientific information to characterize smaller, regional sub-ecosystems and creating targeted management, stewardship and other strategies to solve problems. As one example of this type of approach, the Department of Marine Resources has been working in the Taunton Bay area for the past seven years. This work has been supported with state funds and personnel, federal support through the Maine Coastal Program and Wallop-Breaux funds and significant volunteer contributions. A very rough estimate of the cost of this work over the life of the project to date is $200,000.

INFORMATION GATHERED:
BUDGET CONTEXT

Although on a much larger scale, another example of place-based management in Maine is the Casco Bay Estuary Partnership, one of 28 National Estuary Projects in the country. While initially supported by federal and state funding in its early formative stages, state funding for the program has decreased markedly over the last __ years. Federal funding for the implementation stage of the Partnership is now roughly ___ annually, while state support includes only an in-kind contribution of state staff time.

This information is included to provide a practical example of the level of resources that would be needed for similar, bay-specific cooperative projects.

Current and anticipated budgetary considerations suggest that an incremental approach may best ensure continuing progress in achieving the more integrated, regionally-focused approach to management of Maine's nearshore areas at which the Council's recommendations aim. In developing its recommendations, the Council has focused on potential new or additional state actions to address nearshore management concerns for which funding may be reasonably available in light of current and anticipated competing needs. The Council believes that any significant additional state agency responsibilities to address its recommendations should be matched with additional resources lest its recommendations create unreasonable public expectations or divert resources from other important and currently funded efforts. The Council recognizes that decisions regarding budgeting and allocation of state resources to support implementation of this report's nearshore management recommendations must be tempered by consideration of other current and foreseeable state responsibilities and other public needs and priorities, as well as agencies' own periodic and on-going assessment of such needs and priorities.

Potential bay management partners in municipal government, non-governmental organizations, business and industry and the public face comparable constraints on their ability to take on new initiatives while maintaining important current commitments. While in many ways an impediment to improving nearshore management efforts, the limited scope of public and private resources available to support the types of regionally-focused efforts recommended by this study, and the shared need to invest such resources prudently, may help ensure state-municipal-private cooperation and collaboration that are needed to build capacity to address key issues effectively on a regional basis. Strategic planning in relation to development of a more unified state vision for nearshore management may provide a useful vehicle for ensuring that available state resources are used optimally, in part by leveraging the benefits of the involvement of municipalities and the public, business and industry, conservation organizations and other stakeholders in regional initiatives.